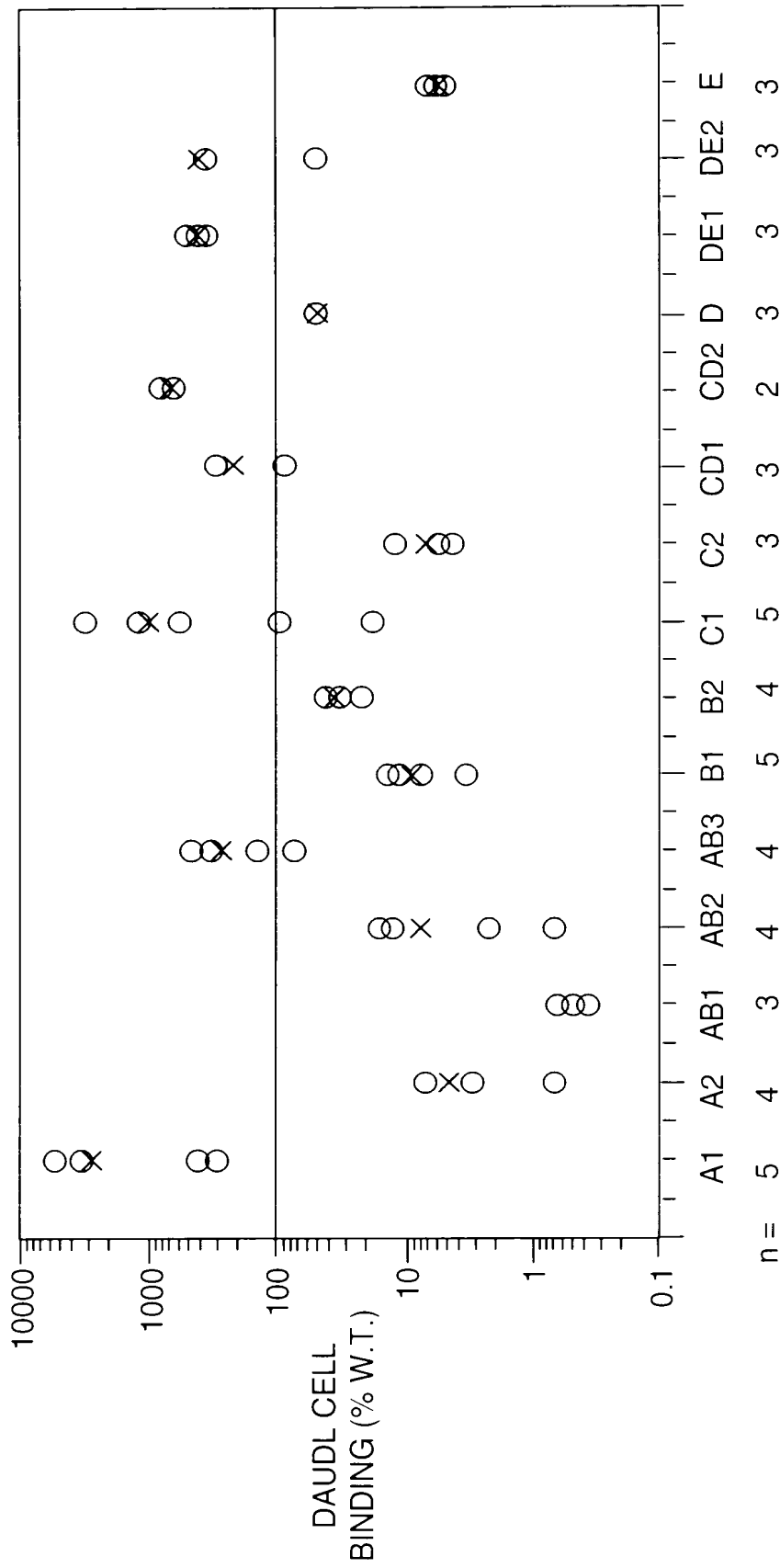FIG. 1

FIG. 2
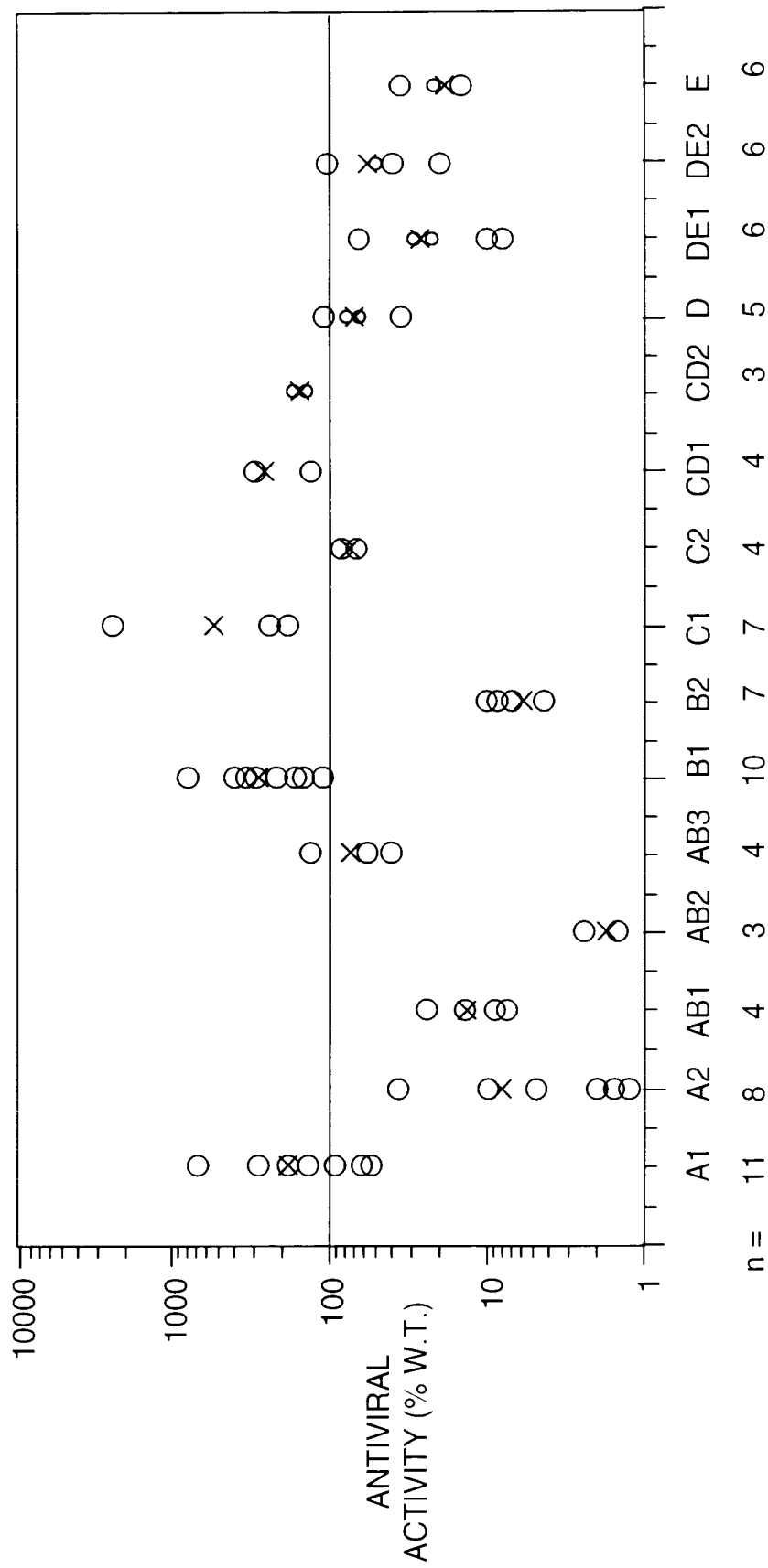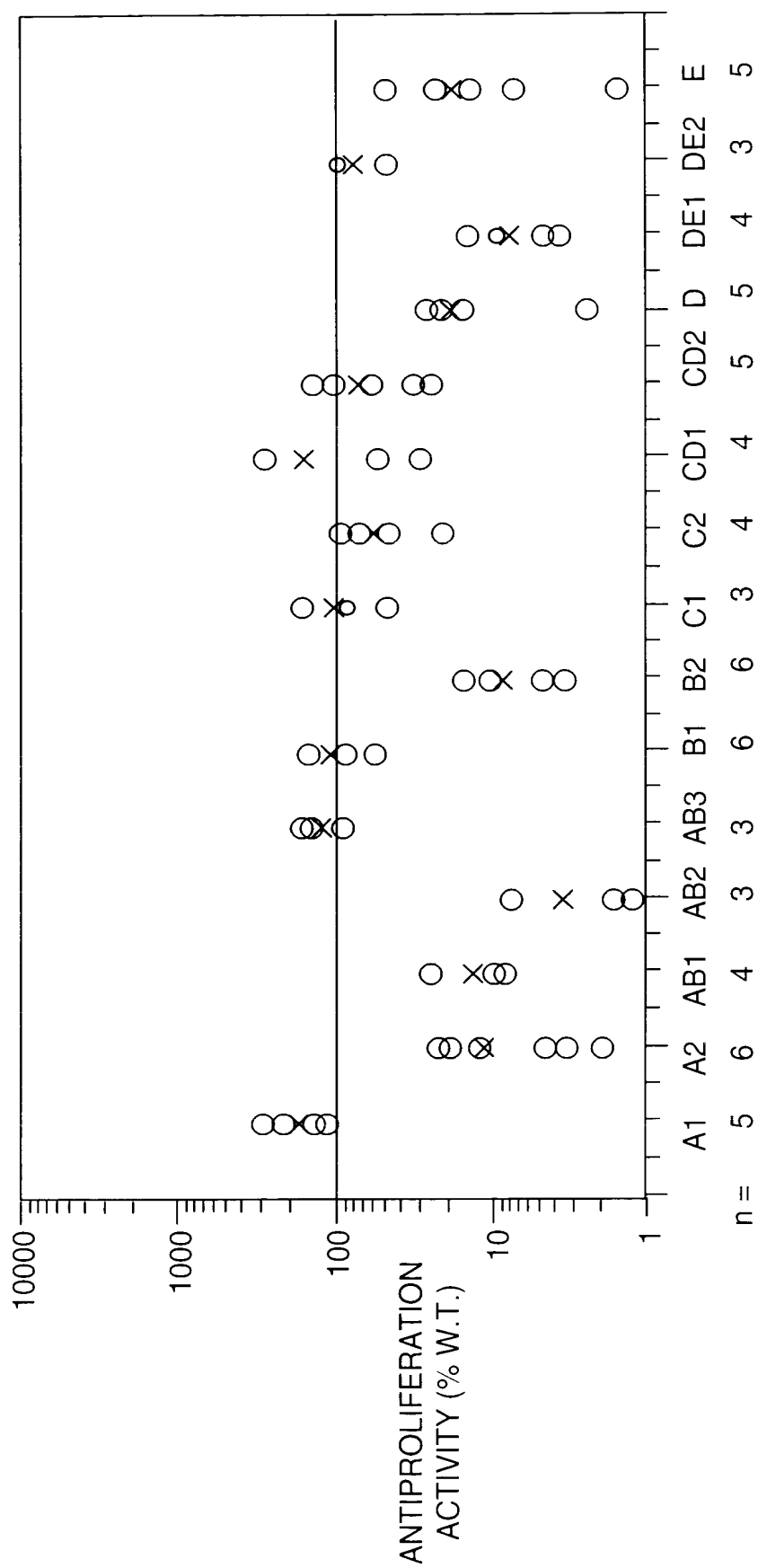
FIG. 3

FIG. 4
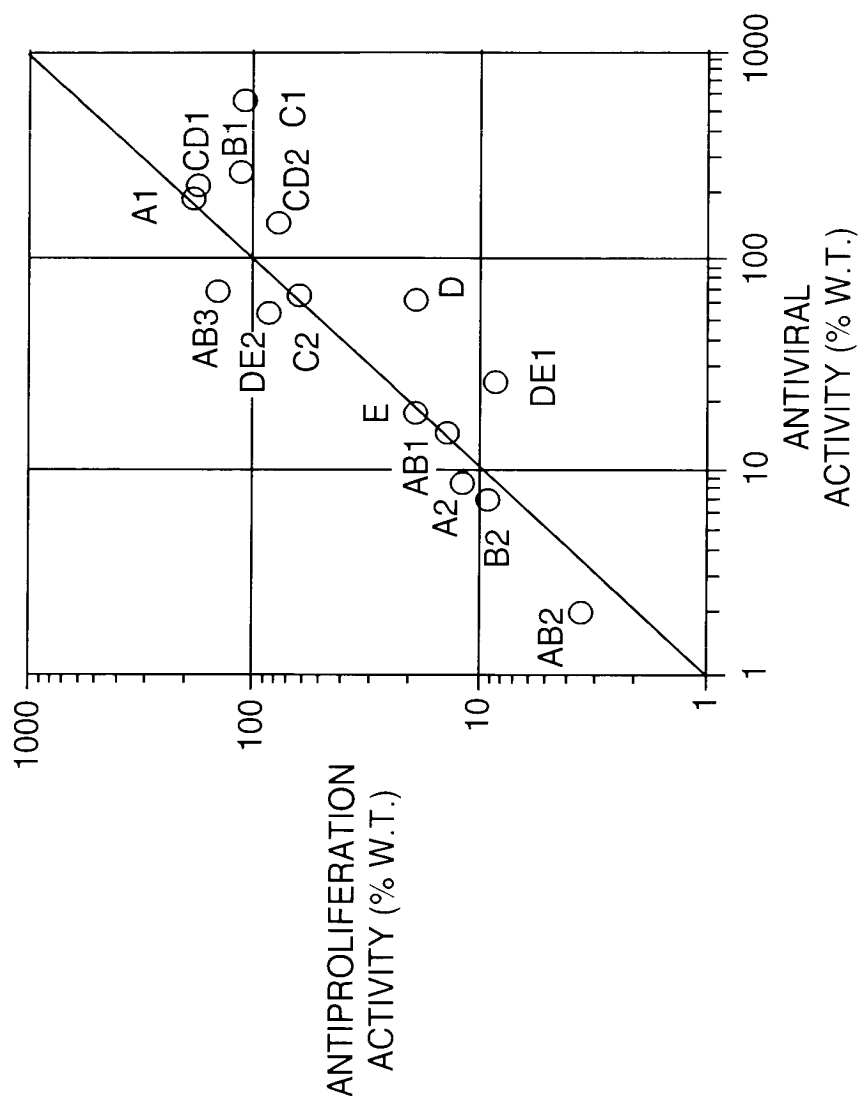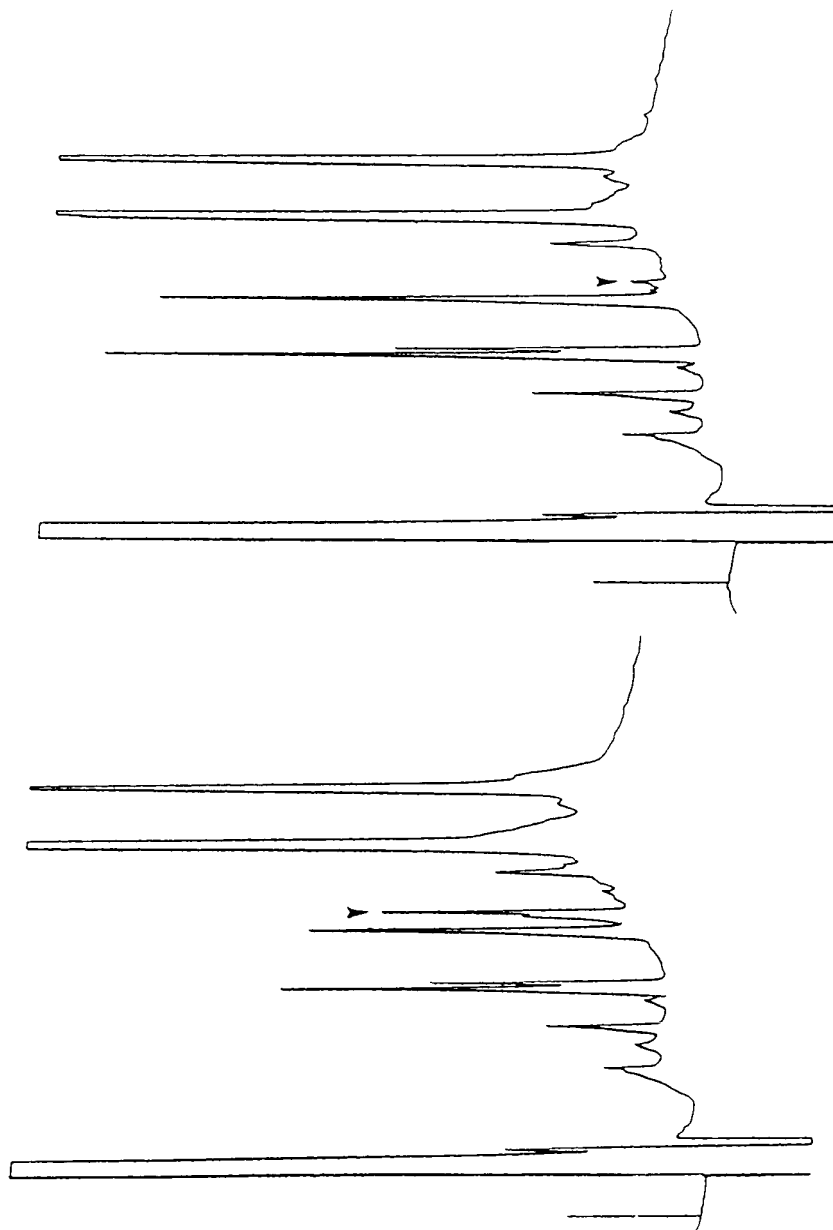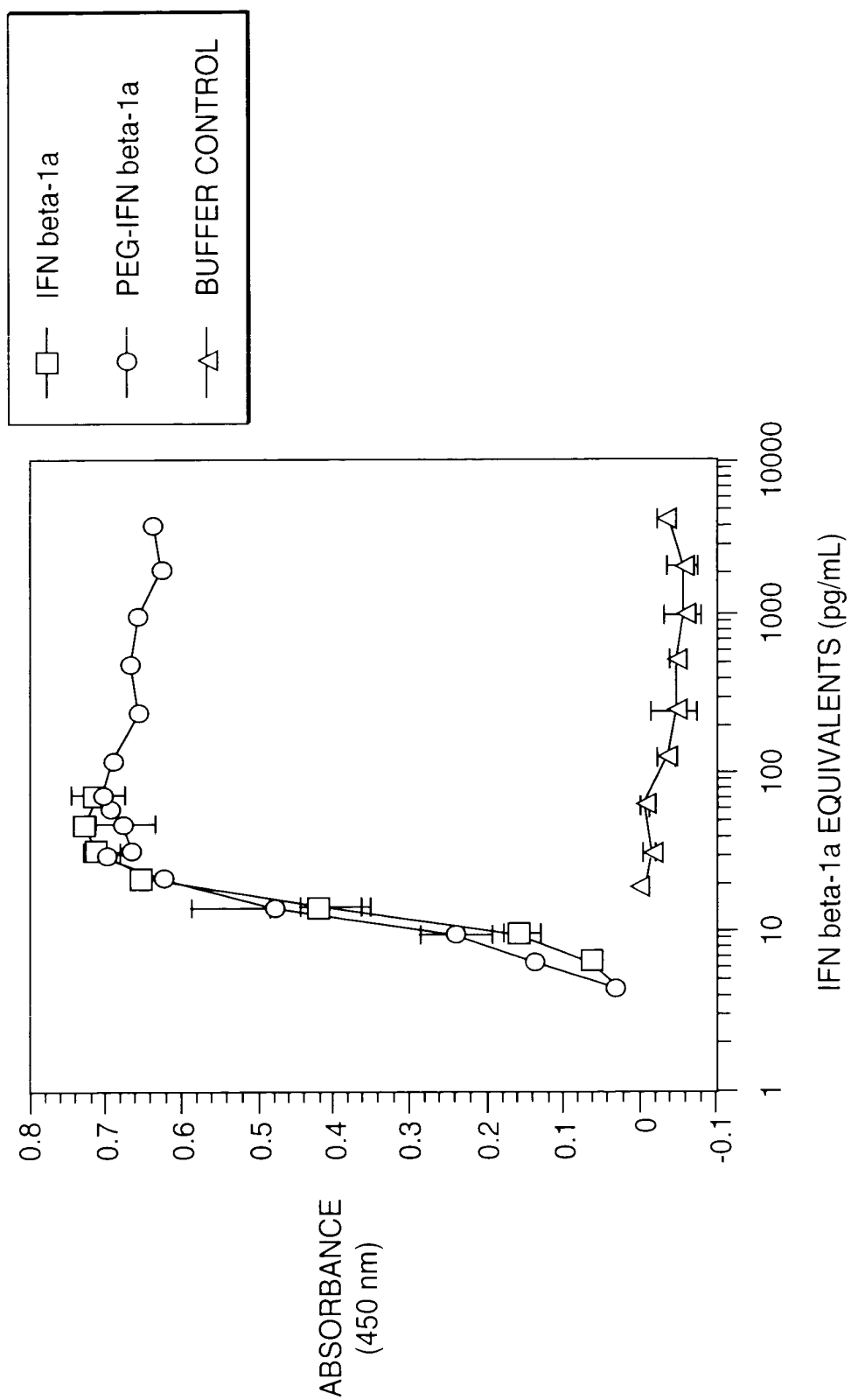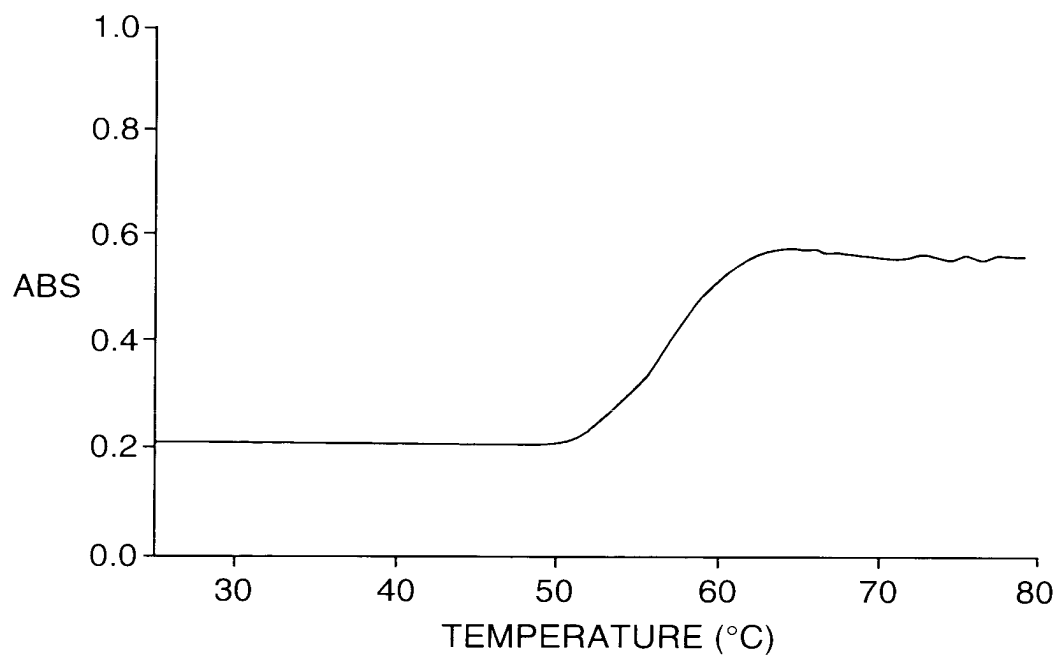
FIG. 5

FIG. 6A

FIG. 6B

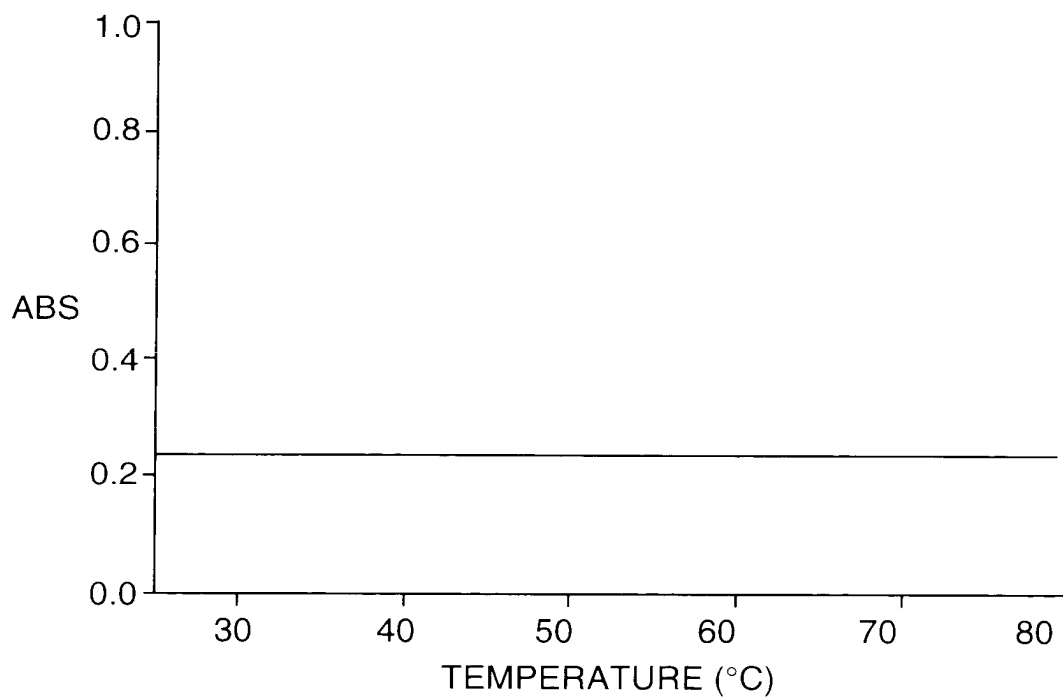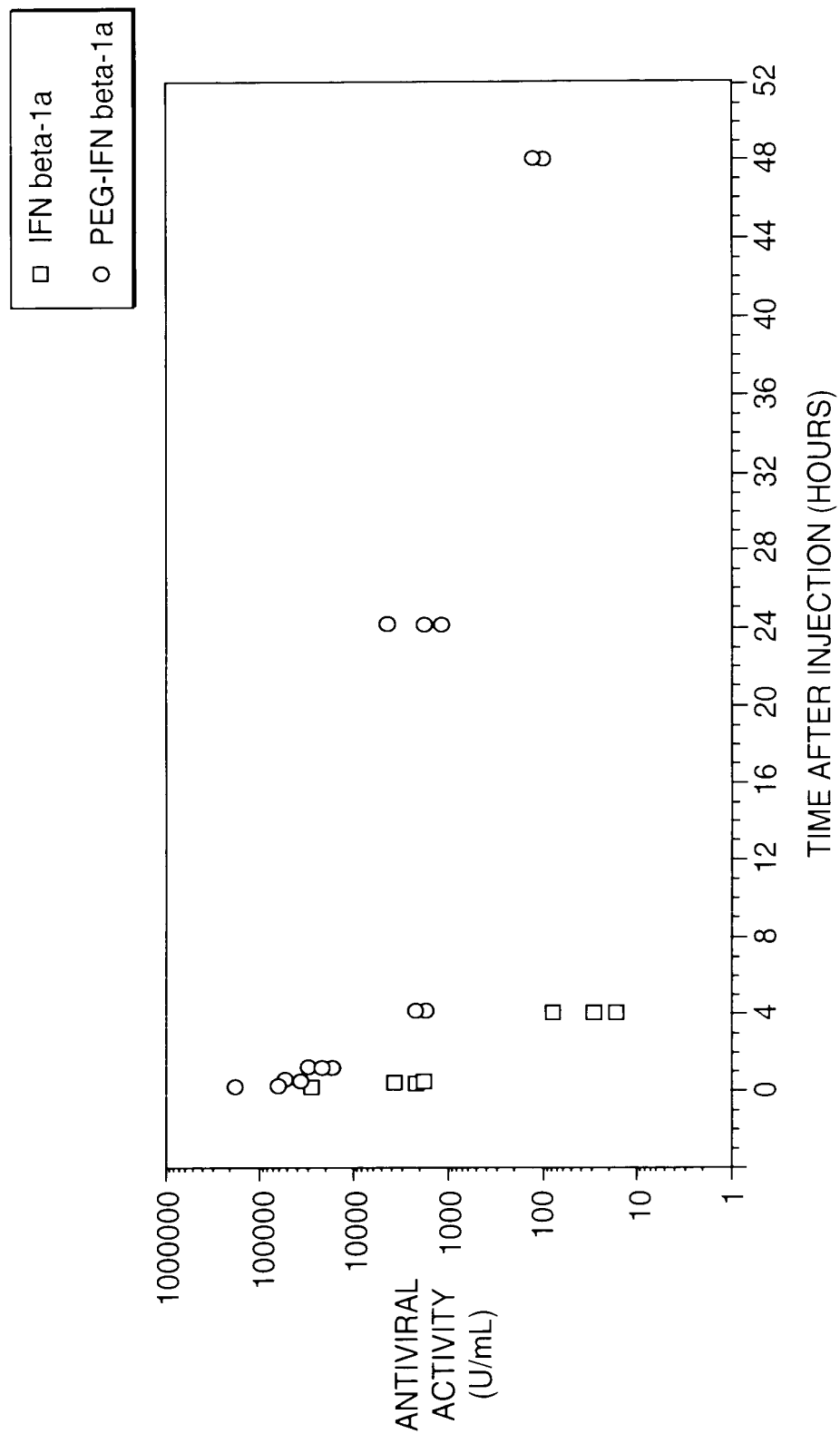FIG. 7

FIG. 8a

FIG. 8b

FIG. 9

```
  1  TCCGGGGGCC  ATCATCATCA  TCATCATAGC  TCCGGAGACG  ATGATGACAA  GATGAGCTAC
     AGGCCCCCGG  TAGTAGTAGT  AGTAGTATCG  AGGCCTCTGC  TACTACTGTT  CTACTCGATG
  1▶Ser Gl yGl yH  i sHi sHi sHi  sHi sHi sSer  Ser Gl yAspA  spAspAspLy  sMet Ser Tyr

 61  AACTTGCTTG  GATTCCTACA  AAGAAGCAGC  AATTTTCAGT  GTCAGAAGCT  CCTGTGGCAA
     TTGAACGAAC  CTAAGGATGT  TTCTTCGTCG  TTAAAAGTCA  CAGTCTTCGA  GGACACCGTT
 21▶AsnLeuLeuG  l yPheLeuGl  nAr gSer Ser  AsnPheGl nC  ysGl nLysLe  uLeuTr pGl n

121  TTGAATGGGA  GGCTTGAATA  CTGCCTCAAG  GACAGGATGA  ACTTTGACAT  CCCTGAGGAG
     AACTTACCCT  CCGAACTTAT  GACGGAGTTC  CTGTCCTACT  TGAAACTGTA  GGGACTCCTC
 41▶LeuAsnGl yA  r gLeuGl uTy  r CysLeuLys  AspAr gMet A  snPheAspI l  ePr oGl uGl u

181  ATTAAGCAGC  TGCAGCAGTT  CCAGAAGGAG  GACGCCGCAT  TGACCATCTA  TGAGATGCTC
     TAATTCGTCG  ACGTCGTCAA  GGTCTTCCTC  CTGCGGCGTA  ACTGGTAGAT  ACTCTACGAG
 61▶I l eLysGl nL  euGl nGl nPh  eGl nLysGl u  AspAl aAl aL  euThr I l eTy  r Gl uMet Leu

241  CAGAACATCT  TTGCTATTTT  CAGACAAGAT  TCATCTAGCA  CTGGCTGGAA  TGAGACTATT
     GTCTTGTAGA  AACGATAAAA  GTCTGTTCTA  AGTAGATCGT  GACCGACCTT  ACTCTGATAA
 81▶Gl nAsnI l eP  heAl al l ePh  eAr gGl nAsp  Ser Ser Ser T  hr Gl yTr pAs  nGl uThr I l e

301  GTTGAGAACC  TCCTGGCTAA  TGTCTATCAT  CAGATAAACC  ATCTGAAGAC  AGTCCTGGAA
     CAACTCTTGG  AGGACCGATT  ACAGATAGTA  GTCTATTTGG  TAGACTTCTG  TCAGGACCTT
101▶Val Gl uAsnL  euLeuAl aAs  nVal Tyr Hi s  Gl nI l eAsnH  i sLeuLysTh  r Val LeuGl u

361  GAAAAACTGG  AGAAAGAAGA  TTTCACCAGG  GGAAAACTCA  TGAGCAGTCT  GCACCTGAAA
     CTTTTTGACC  TCTTTCTTCT  AAAGTGGTCC  CCTTTTGAGT  ACTCGTCAGA  CGTGGACTTT
121▶Gl uLysLeuG  l uLysGl uAs  pPheThr Ar g  Gl yLysLeuM  et Ser Ser Le  uHi sLeuLys

421  AGATATTATG  GGAGGATTCT  GCATTACCTG  AAGGCCAAGG  AGTACAGTCA  CTGTGCCTGG
     TCTATAATAC  CCTCCTAAGA  CGTAATGGAC  TTCCGGTTCC  TCATGTCAGT  GACACGGACC
141▶Ar gTyr Tyr G  l yAr gI l eLe  uHi sTyr Leu  LysAl aLysG  l uTyr Ser Hi  sCysAl aTr p

481  ACCATAGTCA  GAGTGGAAAT  CCTAAGGAAC  TTTTACTTCA  TTAACAGACT  TACAGGTTAC
     TGGTATCAGT  CTCACCTTTA  GGATTCCTTG  AAAATGAAGT  AATTGTCTGA  ATGTCCAATG
161▶Thr I l eVal A  r gVal Gl uI l  eLeuAr gAsn  PheTyr Phel  l eAsnAr gLe  uThr Gl yTyr

541  CTCCGAAAC
     GAGGCTTTG
181▶LeuAr gAsn
```

FIG. 10

FIG. 11

Synthetic Oligos   NotI

BspEI
BglII
MunI
PstI
BsaHI
BsaI
XbaI
BspHI
DraIII
PvuI
BstEII
XhoI
BamHI

VCAMSS+IFNB

pCMG275.8
(3462 bp)

Chloramphenicol

Cloning Vector

NotI + BamHI fragment

BamHI

OriP

pDSW247 Pcmv
(9405 bp)

Ampicillin   Hygromycin

NotI

EBNA Expression Vector

Express in EBNA293 Cells

Quantitate by:
ELISA
Western Blot

Functional Assays

Anti-viral Assay
Anti-proliferative Assay

Daudi Cell Binding
IFNAR2-Fc Binding